

Exhibit A SCOPE OF WORK

TECHNICAL TASK LIST

Task #	CPR	Task Name
1	N/A	Administration
2		Conduct Marketing and Outreach Activities
3		Promote US DOE Superior Energy Performance (SEP) Certification Program to California food and beverage processing industry
4		Annual Report

KEY NAME LIST

Task #	Key Personnel	Key Subcontractor(s)	Key Partner(s)
1	Sharon P Shoemaker, Ricardo Amón – UC Davis		
2	Sharon P Shoemaker, Ricardo Amón – UC Davis		
3	Ricardo Amón – UC Davis		
4	Ricardo Amón, Sharon P Shoemaker – UC Davis		

GLOSSARY

Specific terms and acronyms used throughout this work statement are defined as follows:

Acronym	Definition
ACPC	Accredited Plant Certification Program
ANSI	American National Standards Institute
BP	Best Practices
CCM	Commission Contract Manager
CIFAR	California Institute of Food Agricultural Research
CLFP	California League of Food Processors
CPUC	California Public Utilities Commission
DOE	Department of Energy
ESAs	Energy Savings Assessments
IEPR	Integrated Energy Policy Report
ITP	Industrial Technologies Program
NFPA	Northwest Food Processors Association
POU	Publicly Owned Utilities
SEP	Superior Energy Performance Program
SMUD	Sacramento Municipal Utility District
UCD	University of California at Davis

Background

The California food processing industry contributes over \$60 billion to the State's Gross Product account and consumes significant amounts of fresh water, liquid fuels, electricity and natural gas energy resources. To remain competitive the food industry needs to reduce energy costs and save water. The University of California at Davis (UCD), California Institute of Food Agricultural Research (CIFAR) technical support services will advance the adoption of Industrial Best Practices and food processing industry participation in the US Department of Energy (DOE) Superior Energy Performance (SEP) Program, supported by the American National Standards Institute (ANSI) Accredited Plant Certification Program (APCP). These products and services will encourage food companies to integrate Best Practices, adopt Energy System Assessment recommendations and achieve energy and water efficiency.

Since early 2003, the Energy Commission has implemented the US DOE Industrial Technologies Program (ITP) by delivering Industrial Best Practices (BP) training workshops; conducting Energy Savings Assessments (ESAs); and co-sponsoring Qualified Specialist certification courses. From May 2005 to December 2007 the Energy Commission completed a total of 24 industrial ESAs and identified potential energy savings of over 1,800,000 MMBtu/yr (18 million therms) and 39,000,000 kWh per year; energy cost savings of over \$14.5 million per year; and over 121,000 tons per year of potential carbon dioxide emission reductions for California industry¹. Based on this potential, in 2009 DOE awarded a new \$900,000 grant (# DE-EE0000346), for the Energy Commission to further promote DOE's ITP Best Practices program and implement a newly created Superior Energy Performance certification program.

In June 2010, the Energy Commission awarded five separate contracts with DOE Qualified instructors/specialists for the delivery of Industrial Best Practices (BP) training courses and to conduct ESAs for the steam, process heating, motors, pumps, fans and compressed air systems. Staff is actively managing these contracts and is working with our utility partners to provide BP training to industrial customers.

Goals and Objectives of the Agreement

The goal of this Agreement is to expand the scope of the Energy Commission's Industrial Program beyond the conventional Energy Savings Assessments topic areas of steam, process heating, motors, pumps, fans and compressed air. The objective is to capture significant energy savings from adopting water efficiency and waste-water recycling. Furthermore, additional biogas energy generation opportunities can be realized by recovering process waste products.

The UCD CIFAR will develop a methodology to account for indirect "embedded" energy content in the food and beverage industry that can be adopted by other industrial

¹ CEC Staff paper submitted to the Industrial Energy Technology Conference, New Orleans, 2008 "Energy Efficiency Opportunities in California Food Processing Facilities", T. Wong, D. Kazama, and J. Wang.

facilities. Specifically, employing a whole systems approach will lead to improved energy and resource utilization, cost reductions and environmental benefits while allowing manufacturers to comply with new Green House Gas emission regulations under the California Air Resources Board's Cap and Trade program.

The objectives of this Agreement are to:

- Provide marketing for USDOE BP training workshops delivered by the five Commission BP contractors.
- Conduct outreach activities to recruit industrial facilities to participate in the Commission ESAs conducted by the five Commission contractors or Energy Commission staff.
- Promote and help to implement the ANSI APCP under the USDOE Superior Energy Performance program.
- Develop methodology to account for indirect "embedded" energy content in the food and beverage industry.

TASK 1.0 ADMINISTRATION MEETINGS

Task 1.1 Attend Kick-off Meeting

The goal of this task is to establish the lines of communication and procedures for implementing this Agreement.

The Contractor shall:

- Attend a "kick-off" meeting with the Commission Contract Manager, the Contracts Officer, and a representative of the Accounting Office. The Contractor shall bring their Project Manager, Contracts Administrator, Accounting Officer, and others designated by the Commission Contract Manager to this meeting. The administrative and technical aspects of this Agreement will be discussed at the meeting. Prior to the kick-off meeting, the Commission Contract Manager will provide an agenda to all potential meeting participants.

The administrative portion of the meeting shall include, but not be limited to, the Terms and conditions of the Agreement.

The technical portion of the meeting shall include, but not be limited to, the following:

- The Commission Contract Manager's expectations for accomplishing tasks described in the Scope of Work;
- An updated Schedule of Deliverables
- Quarterly Progress Reports (Task 1.3)
- Process for Deliverables (Task 1.4)
- Final Report (Task 1.5)

The Commission Contract Manager shall designate the date and location of this meeting.

Contractor Deliverables:

- An Updated Schedule of Deliverables

Commission Contract Manager Deliverables:

- Final Report Instructions

Task 1.2 Final Meeting

The goal of this task is to closeout this Agreement.

The Contractor shall:

- Meet with the Energy Commission to present the findings, conclusions, and recommendations. The final meeting must be completed during the closeout of this Agreement.

This meeting will be attended by, at a minimum, the Contractor, the Commission Contracts Officer, and the Commission Contract Manager. The technical and administrative aspects of Agreement closeout will be discussed at the meeting, which may be two separate meetings at the discretion of the Commission Contract Manager.

The technical portion of the meeting shall present findings, conclusions, and recommended next steps (if any) for the Agreement. The Commission Contract Manager will determine the appropriate meeting participants.

The administrative portion of the meeting shall be a discussion with the Commission Contract Manager and the Contracts Officer about the Agreement closeout items.

- Prepare a schedule for completing the closeout activities for this Agreement.

Deliverables:

- Written documentation of meeting agreements and all pertinent information
- Schedule for completing closeout activities

Task 1.3 Quarterly Progress Reports

The goal of this task is to periodically verify that satisfactory and continued progress is made towards achieving the research objectives of this Agreement.

The Contractor shall:

- Prepare progress reports which summarize all Agreement activities conducted by the Contractor for the reporting period, including an assessment of the ability to complete the Agreement within the current budget and any anticipated cost overruns. Each progress report is due to the Commission Contract Manager within 10 working days

after the end of the reporting period, on a format to be provided by Commission Contract Manager.

Deliverables:

- Quarterly Progress Reports

Task 1.4 Process for Deliverables

The goal of this task is to set forth the general requirements for submitting deliverables, unless described differently in the Technical Tasks.

The Contractor shall:

- Unless otherwise directed in this Scope of Work, submit a draft of each deliverable listed in the Technical Tasks to the Commission Contract Manager for review and comment in accordance with the approved Schedule of Deliverables. The Commission Contract Manager will provide written comments back to the Contractor on the draft deliverable within 10 working days of receipt. Once agreement has been reached on the draft, the Contractor shall submit the final deliverable to the Commission Contract Manager. The Commission Contract Manager shall provide written approval of the final deliverable within 5 working days of receipt. Key elements from this deliverable shall be included in the Final Report for this project.

Task 1.5 Final Report

The goal of this task is to prepare a comprehensive written Final Report that describes the original purpose, approach, results and conclusions of the work done under this Agreement. The Commission Contract Manager will review and approve the Final Report. The Final Report must be completed on or before the termination date of the Agreement. When creating these deliverables, the Contractor shall use and follow, unless otherwise instructed in writing by the Commission Contract Manager, the latest Final Report format provided by the Contract Manager. The Final Report shall be a public document.

Task 1.5.1 Final Report Outline

The Contractor shall:

- Prepare a draft outline of the Final Report.
- Submit the draft outline of Final Report to the Commission Contract Manager for review and approval. The Commission Contract Manager will provide written comments back to the Contractor on the draft outline within 10 working days of receipt. Once agreement has been reached on the draft, the Contractor shall submit the final outline to the Commission Contract Manager. The Commission Contract Manager shall provide written approval of the final outline within 5 working days of receipt.

Deliverables:

- Draft Outline of the Final Report March 1, 2013
- Final Outline of the Final Report April 1, 2013

Task 1.5.2 Final Report

The Contractor shall:

- Prepare the draft Final Report for this Agreement in accordance with the approved outline.
- Submit the draft Final Report to the Commission Contract Manager for review and comment. The Commission Contract Manager will provide written comments within 10 working days of receipt.

Once agreement on the draft Final Report has been reached, the Commission Contract Manager shall forward the electronic version of this report for Energy Commission internal approval. Once the approval is given, the Commission Contract Manager shall provide written approval to the Contractor within 5 working days.

- Submit one bound copy of the Final Report with the final invoice.

Deliverables:

- Draft Final Report August 1, 2013
- Final Report October 1, 2013

TECHNICAL TASKS

The Contractor shall prepare all deliverables in accordance with the requirements in Task 1.4. The work described below involves contractor's participation at various food industry conferences and meetings. For most of the conferences/meetings, the specific locations and dates have not yet been identified. CCM shall provide written instruction to Contractor when the conference/meeting has been identified, including the location and date. Contractor will not make travel arrangements to attend a conference/meeting until CCM has provided written approval.

TASK 2 Conduct Marketing and Outreach Activities

In June 2010, the Energy Commission awarded five separate contracts for the delivery of Industrial Best Practices (BP) training courses and to conduct Energy Savings Assessments (ESAs). CEC staff is actively managing these contracts and is working with utility partners provide training to industrial customers.

The Contractor will work with CEC staff to develop a marketing plan, implement program to promote BP workshops, and identify and secure request for ESAs among food processing industry companies.

Task 2.1 Collaborate in the Production of Marketing Plan

The Contractor shall lead effort and collaborate with CEC Industrial Program staff to write a marketing plan to promote BP workshops and ESAs.

Task 2.2 Promote BP Workshop

The Contractor shall:

- Recruit Publicly Owned Utility Companies (POUs) to host BP workshops as part of their energy efficiency education programs. POUs include but not limited to Sacramento Municipal Utility District (SMUD), Modesto Irrigation District, Lodi Electric, and Turlock Irrigation District.
- Recruit IOUs, if directed by Commission Contract Manager.
- Secure letters of commitment from POUs regarding their participation/commitments to host BP workshops. POUs include SMUD, Modesto Irrigation District, Lodi Electric, Turlock Irrigation District and other POUs serving industrial food customers.
- Work with US DOE to supply educational materials directly to the POUs, to support POUs BP workshops.

Task 2.3 Promote Energy Savings Assessments (ESAs)

- Contractor shall work with partnering POUs to offer ESAs to food industry companies.
- Contractor shall develop strategy – Phone call with Commission Contract Manager to discuss strategy to recruit companies to participate in ESAs.
- Contractor shall contact company executives to determine interest in participation in ESA at their company.
- Contractor shall arrange on-site visits at Company that indicated interest in ESA.
- Contractor shall coordinate with Commission Contract Manager with regard to details of conducting the ESA, such as dates and assignment of Commission contracted ESA qualified specialists in steam systems, compressed air systems, pumps, and process heat areas.
- Commission's contracted qualified specialist or Commission staff will conduct ESA for the participating companies, and will write a report.
- Commission Contract Manager will review and approve ESA reports, and may request Contractor to assist in this review.
- Commission Contract Manager will provide a copy of the report to participating companies and may request Contractor to assist in disseminating reports to the companies.
- Commission Contract Manager will present an in-person program with ESA report results to participating companies and may request Contractor to assist in these presentations.

Task 2.4 Produce Informational ESA Case Studies

The Contractor will produce nine informational case study brochures for completed ESAs. The Contractor shall:

- Survey Food Companies:
 - Survey the entire list of companies that received Energy Commission ESAs.
 - Identify companies that have adopted ESA recommendations and choose 9 for case studies.
 - Secure cooperation from company executives to collaborate and provide information to produce case study brochures.
 - Prepare survey report.
- Prepare case study:
 - Conduct phone interviews or site visits with technical staff from the elected companies to gather data, take pictures and evaluate technical, economic and environmental benefits.
 - Complete 4 case studies by June 2012
 - Complete 5 case studies by June 2013
- Produce 9 case study brochures describing the results of the case studies:
 - Draft brochures for company and Commission Contract Manager review.
 - Post approved brochures on CIFAR website.
 - Copy approximately fifty 8.5X11 color brochures for each case study. (Exact number of brochures to be determined by Commission Contract Manager)
- Attend conference and food processing association meetings to promote case studies and distribute brochures.

Task 2.5 Produce Best Practices Video

The Contractor will produce a streaming video on compressed air system best practices. CEC will assign and cover the cost of BP Compressed Air System Specialist to collaborate with Contractor in the writing of video script, filming and editing of the final video product. The Contractor shall:

- Develop video production plan.
- Write video script.
- Secure video shooting location.
- Schedule UC Davis video production unit.
- Conduct in-studio practice runs with UC Davis video production unit.
- Coordinate video shooting schedule.
- Arrange for UC Davis Video Production to shoot and edit.
- Evaluate and approve final video product.
- Post video on CIFAR website.

Task 2.6 Attend Conferences and Exhibit

Contractor will participate at food industry meetings to give presentations that promote availability of workshops and ESAs, and display video and distribute case study brochures. The Contractor Shall:

- Attend quarterly California League of Food Processors (CLFP) Energy Committee meetings
- Participate in industry conferences, i.e., CLFP, Wine Institute, Dairyman Association and other industrial meetings.
- Distribute email list serve contacts from CIFAR, UC Davis Department of Food Science and Technology, the UC Davis Mondavi Institute, and other sources.

This task will be an ongoing activity throughout the contract term.

Deliverables:	Due Dates for Draft Report:
<i>Marketing Plan</i>	<i>November 1, 2011</i>
<i>Partnership Commitment letters from POUs</i>	<i>February 2012</i>
<i>ESA Participation survey report for all companies that received ESA</i>	<i>March 1, 2012</i>
<i>4 Case Study final brochures in pdf files</i>	<i>June 2012</i>
<i>5 Case Study final brochures in pdf files</i>	<i>June 2013</i>
<i>Video Production Plan & Script</i>	<i>September 2012</i>
<i>Best Practices Video (electronic format)</i>	<i>June 2013</i>
<i>Email list serve contact list</i>	<i>June 2013</i>

TASK 3 Promote US DOE Superior Energy Performance (SEP) Certification Program to California Food and Beverage Processing Industry

The goal of this task is to promote the US DOE Superior Energy Performance (SEP) Certification Program to encourage food manufacturing companies to integrate Best Practices and adopt Energy System Assessment recommendations to achieve both energy and water efficiency. The adoption of these practices is consistent with the California Public Utilities Commission (CPUC) goal to reduce industrial energy intensity by at least 25 percent by 2020. The CPUC's Long Term Energy Efficiency Strategic Plan directs utility companies to develop a Food Industry Pilot Demonstration Project that integrates all energy resource utilization, including energy efficiency, demand response, energy storage, combined heat and power, distributed generation, renewable energy and emerging technologies.

Task 3.1 Promote the US DOE SEP Certification Program

Contractor will promote the US DOE SEP Certification Program to become standard industrial operating procedures among food and beverage industry companies. The Contractor shall:

- a. Attend industry conferences and meetings of California food industry associations to disseminate information provided by the US Department of Energy's Industrial Technology Program.

- b. Recruit Publicly Owned Utility Companies (POUs) to become USDOE SEP partners to add ANSI APCP to their industrial energy efficiency technology adoption programs. Secure commitment letters from POU (SMUD, Modesto Irrigation District, Lodi Electric, Turlock Irrigation District and other POU serving industrial food customers) regarding their participation/commitment to help find companies for SEP Program.
- c. Develop proposed implementation plan with POU partners to promote US DOE SEP and identify target companies – how they will be recruited, steps to participate, etc
- d. Introduce company executives to the US DOE's Industrial Technologies Program offerings, i.e., Superior Energy Performance and Save Energy Now and the ANSI APCP.
- e. Identify three potential cooperating companies that already have received CEC funded ESAs and adopted recommendations.
 - Secure cooperation from three company executives to participate in DOE ITP programs.
 - Submit list of selected companies to CCM for review and approval.
- f. Work with selected companies to apply for SEP Program.
 - Guide selected companies to apply and become a USDOE demonstration site.
 - Guide selected companies to assess whether the plant is prepared to implement the energy management standard and pursue certification.
 - Coordinate these activities with staff from POU, CEC and DOE's Industrial Technologies Office.
- g. Prepare SEP adoption Report to summarize the implementation of the SEP Program for the three selected companies.

Task 3.2 Develop Methodology to Account for Indirect "Embedded" Energy Content in the Food and Beverage Industry

The Contractor shall:

- Collect historic one year water source (ground or surface water) use data and wastewater discharge data from 15 to 20 canneries. Participating companies will be selected to reflect geographic location, size of company by number of hired workers and type of product produced.
- Utilize data to develop a methodology to calculate energy use by water source to determine the indirect "embedded" energy in water used in the cannery industry.
- Data will be aggregated to not reveal identity of participating companies in the Water Energy nexus report.
- CCM will review and approve the companies before performing the task.
- Write a food industry water energy nexus report documenting the energy intensity of water used in the cannery industry.

Task 3.3 Collaborate with Northwest Food Processors Association (NFPA) in the Implementation of Superior Energy Performance (SEP) Program

Since 2010, NFPA has worked in the implementation of the SEP program in the State of Oregon. The Contractor will benefit by collaborating with NFPA to learn from their implementation experience. Understanding issues and concerns from food processors in Oregon will allow the Contractor to adapt implementation strategies to California conditions. The Contractor already has a working relationship with NFPA. Between 2003 through 2005 they collaborated in the implementation of a California-Northwest Energy Efficiency Emerging Technologies program that disseminated Best Practices to the food processing industry. Contractor will work with NFPA staff during their January 2012, annual conference in Portland Oregon, to learn from their experience implementing the SEP program in Oregon.

The Contractor shall:

- Identify food companies that have participated in the Oregon SEP that also conduct businesses in California. The objective will be to approach these companies to encourage their participation in the California SEP program in coordination with their Oregon facilities.
- Attend the NFPA annual conference in Portland, Oregon in January 2012 and January 2013 to deliver Power Point presentation to NFPA Board of Directors. The presentation will describe California's efforts to implement SEP program goals with food companies that have processing facilities in both States.
- Submit draft Power Point for Commission Contract Manager's review and approval.

<u>Deliverables:</u>	<u>Due Dates for Draft Report:</u>
<i>Partnership commitment letter from POU's</i>	<i>December, 2011</i>
<i>Proposed Implementation plan with POU partners</i>	<i>March 2012</i>
<i>Recommendations for three selected companies to participate in SEP</i>	<i>June 2012</i>
<i>Power Point Presentation</i>	<i>December 2011</i>
<i>Proposed companies participating in the Water Energy Nexus study</i>	<i>March 2012</i>
<i>Water Energy Nexus Report</i>	<i>May 2013</i>
<i>SEP adoption Report</i>	<i>June 2013</i>

TASK 4 Annual Report

The annual report, using format to be specified by the Contract Manager will include a description of progress achieved in each task and subtasks within the scope of work.

<u>Deliverables:</u>	<u>Due Date for Draft Reports:</u>
<i>Annual Report</i>	<i>August 31, 2012</i>
<i>Annual Report</i>	<i>August 31, 2013</i>